

**Notice of Allowability**

Application No.

10/697,553

Examiner

Benny Q. Tieu

Applicant(s)

KANADA, YASUSHI

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Patent Application filed on October 31, 2003.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 10/31/03 & 3/15/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

***Reasons For Allowance***

1. The following is an examiner's statement of reasons for allowance: Knappe et al. (U.S. Patent No. 6,850,496) teach a system and method divide a conferencing presentation sound field into sectors, and allocate one or more sectors to each conferencing endpoint. At some point between capture and playout, the voice data from each endpoint is mapped into its designated sector or sectors. Thereafter, when the voice data from a plurality of participants from multiple endpoints is combined, a listener can identify a unique apparent location within the presentation sound field for each participant. The system allows a conference participant to increase their comprehension when multiple participants speak simultaneously, as well as alleviate confusion as to who is speaking at any given time (column 2, lines 1-50). Matsuda (U.S. Patent No. 6,577,306) teaches a method apparatus and presentation medium for avoiding a mismatch state in a 3-dimensional virtual shared space in which an aura is prescribed to surround an avatar which is only allowed to sense other avatars in the aura. A maximum number of other avatars in the aura which the avatar is allowed to sense is predetermined. When a new avatar enters the aura such that the number of other avatars in the aura exceeds the predetermined maximum number, the avatar is not allowed to sense the new avatar. However, if the avatar also enters another aura set for the new avatar and the new avatar is allowed to sense the avatar, the avatar is also allowed to sense the new avatar even if the number of other avatars in the aura of the avatar already exceeds the predetermined maximum number. In this manner, it is possible to avoid a mismatching state in which an avatar is not allowed to sense another avatar in spite of the fact that the other avatar is allowed to sense the avatar. Accordingly, by restricting the number of objects in a virtual reality space that an avatar is allowed to sense in accordance with the

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invention as described above, the amount of transmitted information can be prevented from rising even if the number of objects in the virtual reality space increases. However, prior art of record fails to teach, or render obvious alone or in combination, a human communication system for realizing conversations between a plurality of users using a virtual space and a method using the system thereof, wherein: said human communication system comprises: a server apparatus which manages respective locations of said plurality of users in said virtual space; and a plurality of client terminals used respectively by said plurality of users; each of said plurality of client terminals comprises: a client sending means which sends information on a location of a user himself of the client terminal in question to said server apparatus; a client receiving means which receives information on respective locations of other users than the user of the client terminal in question from said server apparatus; a space modeling means which calculates respective locations of said plurality of users based on said information on the user of the client terminal in question and said information on the locations of the other users; and a sound control means which controls sound effects applied to respective voices of said other users based on the locations calculated by said space modeling means; and said server apparatus comprises: a server receiving means which receives, from each of said plurality of client terminals, the information on the location of the user of the client terminal in question; a storage means which stores the respective locations of said plurality of users in the virtual space, based on the received information; and a server sending means which sends, to each of said plurality of client terminals, the information on the locations of the other users than the user of the client terminal in question as directly recited in all independent claims.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Q. Tieu whose telephone number is 571-272-7490. The examiner can normally be reached on Monday-Friday: 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Benny Q. Tieu  
Primary Examiner  
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